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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/673,134

09/30/2003

Keith Istvan Farkas

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EXAMINER

BHAT, ADITYA S

ART UNIT

PAPER NUMBER

2863

DATE MAILED: 01/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/673,134

Applicant(s)

FARKAS ET AL.

Examiner

Aditya S. Bhat

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 9/27/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-32 is/are pending in the application.
- 4a) Of the above claim(s) 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-15 and 17-32 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/27/2005 has been entered.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-15 and 17-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wareham et al (USPUB 2004/0075343) in view of Begun et al. (USPUB 2003/0055969)

With regards to claim 1, Wareham et al (USPUB 2004/0075343) teaches a method of managing load in a power system comprising:

determining whether a load demand on at least one power system component of a plurality of power system components needs to be varied; (Page 2, paragraph 0028)

determining a new load demand to be placed on the at least one power system component based on a load demand on at least one other functioning power system component of the plurality of power system components in response to determining the load demand on the at least one power system component needs to be varied and the load demand on the at least one other functioning power system component; (Page 4, paragraph 0057) and

With regards to claim 2, Wareham et al (USPUB 2004/0075343) teaches determining whether load demand on the at least one other power system component needs to be varied further comprises determining whether a failure of one of the plurality of power system components occurred. (Page 2, paragraph 0029)

With regards to claim 3, Wareham et al (USPUB 2004/0075343) teaches determining a new load demand to be placed on the at one power system component further comprises:

determining a total load demand on the plurality of power system components, wherein the plurality of power system components are similar to the failed power system component and are functioning; (Page 1, paragraph 0011) and

With regards to claim 4, Wareham et al (USPUB 2004/0075343) teaches determining a new load demand to be placed on the at least one power system component further comprises determining a new load demand that is less than a

maximum loading value of the at least one power system component. (Page 5, paragraph 0059)

With regards to claim 5, Wareham et al (USPUB 2004/0075343) teaches calculating a new load demand to be placed on the at least one power system component further comprises:

storing optimal load demands for the plurality of power system components; and (Page 5, claim 4)

determining new load demands for the plurality of power system components based on the stored load demands. (Page 5, paragraph 0059)

With regards to claim 7, Wareham et al (USPUB 2004/0075343) teaches determining whether a load demand on at least one power system component of a plurality of power system components needs to be varied further comprises determining whether a request to change the load demand of the at least one power system component is received. (Page 2, Paragraph 0026)

With regards to claim 8, Wareham et al (USPUB 2004/0075343) teaches the request is a power system component maintenance-related request. (Page 2, Paragraph 0026 )

With regards to claim 9, Wareham et al (USPUB 2004/0075343) teaches determining whether a load demand on at least one power system component of a plurality of power system components needs to be varied further comprises

determining whether load demands on the plurality of power system components are balanced based on a balancing scheme; (Page 2, Paragraph 0028) Begun et al. (Page 2, Paragraph 0028) and

determining a new load demand comprises determining new load demands for the plurality of power system components based on the balancing scheme in response to the load demands on the plurality of power system components being unbalanced. (Page 2, Paragraph 0028)

With regards to claim 10, Wareham et al (USPUB 2004/0075343) teaches the balancing scheme is associated with at least one of dividing a total load demand on the one or more power system components substantially equally, providing substantially equal spare capacity for the one or more power system components, preventing any of the one or more power system components from exceeding a maximum loading value, and providing greater spare capacity for critical loads. (Page 2, Paragraph 0026)

With regards to claim 11, Wareham et al (USPUB 2004/0075343) teaches controlling the load demand on the at least one power system component to be equal to the determined new load demand further comprises directing the at least one power system component to change its load demand to the new load demand. (Page 2, Paragraph 0026)

With regards to claim 12, Wareham et al (USPUB 2004/0075343) teaches controlling the load demand on the at least one power system component to be equal to the determined new load demand further comprises:

directing a power system component drawing current from the at least one power system component to vary its current draw on the at least one power system component. (Page 1, Paragraph 0005)

With regards to claim 13, Wareham et al (USPUB 2004/0075343) teaches the plurality of power system components comprise power system components substantially located in a data center and providing power to meet the load demand of a plurality of computer systems housed in the data center.

With regards to claim 14, Wareham et al (USPUB 2004/0075343) teaches the at least one power system component comprises power system components in a level in a power grid. (Page 2, Paragraph 0026)

With regards to claim 15, Wareham et al (USPUB 2004/0075343) teaches a system for balancing load demands on power system components comprising:

a first set of power system components in the power system; (See figure 1) and  
a load manager calculating loads demands to be placed on the first set of components based on a load balancing scheme and controlling load demands on the first set of the power system components. (see Figure 1)

With regards to claim 17, Wareham et al (USPUB 2004/0075343) teaches the load manager is connected to a data repository storing optimal load demands for the first set of power system based on modeling the power system in different failure states, and the load manager determines the new load demands for the first set of power system components by identifying the new load demands from the stored optimal load

demands that are associated with the current state of the power system. (Page 5, claim 4 )

With regards to claim 18, Wareham et al (USPUB 2004/0075343) teaches the load manager is operable to detect a failure of a power system component of the first set of power system components from the received data and to control the load demands on the first set of power system components based on the load balancing scheme in response to detecting the failure. (Page 2, Paragraph 0029)

With regards to claim 19, Wareham et al (USPUB 2004/0075343) teaches the load manager is operable to implement the load balancing scheme in response to at least one of a received request to change the load demands on one or more of the first set of components and a determination that the load demands on the first set of power components do not meet predetermined conditions associated with the load balancing scheme. (Page2, Paragraph 26)

With regards to claim 20, Wareham et al (USPUB 2004/0075343) teaches the load balancing scheme is associated with at least one of dividing a total load demand on the one or more power system components substantially equally, providing substantially equal spare capacity for the one or more power System components, preventing any of the one or more power system components from exceeding a maximum loading value, and providing greater spare capacity for critical loads. (Page2, Paragraph 26)

With regards to claim 21, Wareham et al (USPUB 2004/0075343) teaches a fast transfer load device connected to one power system component of the first set of power



system components, the fast transfer load transfer device controlling load demand on the one power system component in response to detecting an over loading on the one power system component.(22; Page, 1 Paragraph 0004)

With regards to claim 22, Wareham et al (USPUB 2004/0075343) teaches the load manager implements the load balancing scheme after the fast transfer load device controls the load demand on the One power system component .(22; Page, 1 Paragraph 0004)

With regards to claim 23, Wareham et al (USPUB 2004/0075343) teaches the power system further comprises a second set of power system components receiving power from the first set of power system components, and the load manager directs at least one power system component of the second set of power system components to vary the load demand on at least one power system component of the first set of power system components to control the load demands on the first set of power system components based on the load balancing scheme. (Page 2, Paragraph 26)

With regards to claim 24, Wareham et al (USPUB 2004/0075343) teaches the load manager controls the load demands on the first set of power system components based on the load balancing scheme by directing at least one power system component in the first set of power system components to vary load demand. (Page 2, Paragraph 27 )

With regards to claim 25, Wareham et al (USPUB 2004/0075343) teaches the first set of components comprise power system components in a level in the power system.( figure 4 )

With regards to claim 26, Wareham et al (USPUB 2004/0075343) teaches the first set of power system components comprise redundant components supplying power to the same load.(see figure 1 )

With regards to claim 27, Wareham et al (USPUB 2004/0075343) teaches an apparatus for managing load demands in a power system comprising:

means for determining whether load demands on a plurality of power system components in the power system need to be varied; (Page 2, paragraph 0028)

means for calculating new load demands to be placed on the plurality of power system components in response to determining the load demands need to be varied; Page 4, paragraph 0057) and

With regards to claim 28, Wareham et al (USPUB 2004/0075343) teaches the means for determining whether load demands on the plurality of power system components need to be varied further comprises means for determining whether load demands on the plurality of power system components need to be varied when a failure of one of the plurality of power system components is detected or when the power system is in a steady state. (Page 2, Paragraph 26)

With regards to claim 29, Wareham et al (USPUB 2004/0075343) teaches a data repository means for storing optimal load demands for the plurality of power system components and the means for determining new load demands retrieves the new load demands from the stored optimal load demands. (Page 2, Paragraph 0027)

With regards to claim 30, Wareham et al (USPUB 2004/0075343) teaches fast load transfer means connected to at least some of the plurality of power system components for varying the load demands on one or more of the power system components connected to the fast load transfer means in response to detecting an overloading of a power system component connected to the fast load transfer means. (22; Page, 1 Paragraph 0004)

With regards to claim 31, Wareham et al (USPUB 2004/0075343) teaches a second set of power system, components receiving power from the first set of power system components, (figure 1)

wherein the load manager is operable to send control data to the first set of power components to control the load demands, (figure 1 & 4) and

the load manager is further operable to calculate load demands to be placed on the second set of power system components based on the load balancing scheme and send control data to the second set of power system components to control the load demands on the second set of power system components (page 2, paragraph 0026)

With regards to claim 32, Wareham et al (USPUB 2004/0075343) teaches the load manager is operable to calculate the load demands to be placed on the first set of components by determining a total load demand on the first set of components; (page 2, paragraph 0026)

Wareham et al (USPUB 2004/0075343) does not appear to teach dividing the total load demand equally among a plurality of power systems in order to ensure that the power system demands are balanced.

Begun et al. (USPUB 2003/0055969) teaches dividing the total load demand equally among a plurality of power systems in order to ensure that the power system demands are balanced. (Page 2, paragraph 0033)

It would have been obvious to one skilled in the art at the time of the invention to modify the Wareham et al (USPUB 2004/0075343) invention to balance the load demand taught by Begun et al. (USPUB 2003/0055969) in order to scale the power consumption of the system current workload on the network (Page 1, paragraph 0006)

#### ***Allowable Subject Matter***

Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 1-5, 7-15 and 17-32 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bradley et al. (USPN 6,795,928) teaches a method for managing power consumption of multiple computer servers, Potter et al. (USPUB 2003/0023885) teaches a automated power management system for a network of computers and Bacelli et al. (USPUB 2004/0224640) teaches a load control scheme and process with power control.

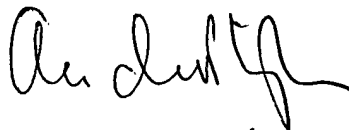
Art Unit: 2863

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aditya S Bhat whose telephone number is 571-272-2270. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aditya Bhat  
January 3, 2006



**MICHAEL NGHIEM**  
**PRIMARY EXAMINER**